IN THE CLAIMS:

Please amend claims 1, 6, 10, 13, 17, 22 and 26; and

cancel claim 9 without prejudice or disclaimer.

1. (Currently Amended) A system, comprising:

a modem configured to perform modulating and demodulating;

a digital interface configured to interface; and

a radio configured to perform radio frequency communication including a radio frequency controller and a radio frequency parts, and

wherein the ~~baseband means~~ modem and the radio ~~frequency means~~ respectively form physically separate modules that are connected with each other by the digital ~~means for interfacing~~ interface, and wherein modem performs forward error correction coding and symbol mapping and demapping.

2-5. Cancelled

6. (Currently Amended) A method, comprising:

forward error correction coding and decoding;

symbol mapping and demapping; and

implementing the forward error correction coding and decoding and symbol mapping and demapping in a baseband modem which is separate from a radio, said ~~providing a radio equipment comprising physically separate modules of a baseband modem and a~~ radio comprising a digitally operating radio frequency controller and radio frequency parts~~;~~. and wherein~~providing~~ a digital interface ~~to connect~~ connects the baseband modem and the radio with each other within the radio.

7. (Previously Presented) The method according to claim 6, further comprising:

sending, from the baseband modem to the radio, transmitter data including in phase component signals and quadratic phase component signals;

sending, from the baseband modem to the radio, transmitter clock signals;

sending, from the baseband modem to the radio, control signals providing support for type-specific functionalities;

sending, from the radio to the baseband modem, receiver clock signals;

sending, from the radio to the baseband modem, receiver data including in-phase component signals and quadratic phase component signals; and

exchanging, between the radio and the baseband modem, microprocessor signals;

wherein each of said sendings and said exchanging are driven by the digital interface.

8. (Original) The method according to claim 7, said method further comprising

providing all signals as digital signals, and wherein a clock rate is provided as a system symbol clock rate, except for a case that a function in the modem utilizes two samples per symbol where a double symbol rate frequency is supported.

9. (Cancelled)

10. (Currently Amended) The method according to claim 6, wherein the radio frequency controller within ~~the~~ the radio comprises respective control loops performing pulse shape filtering, transmitter and receiver correction, receiver timing recovery, and carrier recovery.

11. (Original) The method according to claim 10, wherein the transmitter and receiver correction comprises a quadratic error correction, a balance error correction, a bias error correction, and a gain error correction.

12. (Original) The method according to claim 10, wherein the control loops perform independently of the modulation or traffic type.

13. (Currently Amended) An apparatus, comprising:

digital means for interfacing;

radio means comprising radio controlling means and radio parts means;

baseband means for modulating and demodulating with the radio means so as to enable a physical separation of the baseband means and the radio means, and

wherein the digital means performs the signal exchange between the radio means and the baseband means, and wherein baseband means performs forward error correction coding and symbol mapping and demapping.

14-16. Cancelled

17. (Currently Amended) A system, comprising:

a baseband modem;

a digital interface; and

a radio comprising a digitally operating radio frequency controller and radio frequency parts, and

wherein the baseband modem and the radio are respectively configured as physically separate modules that may be connected with each other by the digital interface, and wherein the basedband modem performs forward error correction coding and symbol mapping and demapping.

18. (Previously Presented) The system according to claim 17, wherein the baseband modem comprises:

a corrector configured to perform forward error correction coding and decoding; and

a symbol mapper configured to perform symbol mapping and demapping.

19. (Previously Presented) The system according to claim 17, wherein the radio frequency controller comprises

respective control loops configured to perform pulse shape filtering, transmitter and receiver correction loops,

a timing recoverer configured to perform receiver timing recovery, and

a carrier recoverer configured to perform carrier timing recovery.

20. (Previously Presented) The system according to claim 19, wherein the transmitter and receiver correction loops comprise

a quadratic error corrector configured to perform quadratic error correction,

a balance error corrector configured to perform balance error correction,

a bias error corrector configured to perform bias error correction, and

a gain error corrector configured to perform bias error correction.

21. (Previously Presented) The system according to claim 19, wherein the control loops are independent of the modulation or traffic type.

22. (Currently Amended) An apparatus, comprising:

a connector configured to connect a baseband modem with a radio comprising a digitally operating radio frequency controller and radio frequency parts within the radio so as to enable a physical separation of the baseband modem and the radio; and

an exchanger configured to perform the signal exchange between the modules, and wherein the baseband modem performs forward error correction coding and symbol mapping and demapping.

23. (Previously Presented) The apparatus according to claim 22, wherein the exchanger is further configured to exchange the signals serially.

24. (Previously Presented) The apparatus according to claim 22, wherein the exchanger is further configured to exchange the signals in parallel.

25. (Previously Presented) The apparatus according to claim 22, further comprising:

a transmitter signal component transmitter configured to send, from the baseband modem to the radio, transmitter data comprising in-phase component signals and quadratic phase component signals;

a transmitter clock signal transmitter configured to send, from the baseband modem to the radio, transmitter clock signals;

a control signal transmitter configured to send, from the baseband modem to the radio, control signals to support type-specific functionalities;

a receiver clock signal transmitter configured to send, from the radio to the baseband modem, receiver clock signals;

a receiver signal component transmitter configured to send, from the radio to the baseband modem, receiver data comprising in-phase component signals and quadratic phase component signals; and

an exchanger configured to exchange, between the radio frequency unit module and the baseband modem module, microprocessor signals.

26. (Currently Amended) An apparatus, comprising:

a radio comprising a digitally operating radio frequency controller and radio frequency parts, and

wherein the radio is configured to be connected to a baseband modem, said radio being physically separate from said baseband modem, by a digital interface, and wherein the baseband modem performs forward error correction coding and symbol mapping and demapping.

27. (Previously Presented) The apparatus according to claim 26, wherein the radio frequency controller comprises:

respective control loops configured to perform pulse shape filtering, transmitter and receiver correction loops,

a timing recoverer configured to perform receiver timing recovery, and

a carrier recoverer configured to perform carrier timing recovery.

28. (Previously Presented) The apparatus according to claim 27, wherein the transmitter and receiver correction loops comprise:

a quadratic error corrector configured to perform quadratic error correction,

a balance error corrector configured to perform balance error correction,

a bias error corrector configured to perform bias error correction, and

a gain error corrector configured to perform bias error correction.

29. (Previously Presented) The apparatus according to claim 27, wherein the control loops are independent of the modulation or traffic type.